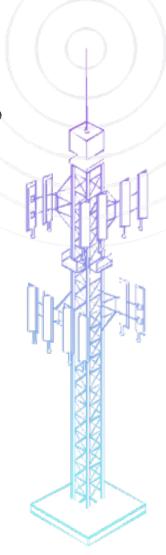
5G SPEEDTEST AND LATENCY HOW DOES MENA COMPARE WITH OTHER REGIONS?

James Carroll

Director Strategic Initiatives, Ookla

From the ANNUAL GCF 5G MENA 2020 November 23rd 2020



Throughput in the world of 5G

Speedtest[®] is uniquely capable of measuring the full throughput capability of a 5G connection.

Speedtest uses a client and server testing engine that dynamically scales the number of connections to the server in order to saturate and accurately measure client-side connections **up to 10 Gbps**.



+12,000,000TESTS DAILY



+300,000,000
COVERAGE SCANS DAILY



12,000+
SERVERS GLOBALLY
IN OVER 190 COUNTRIES



100%

OF THE WORLD'S COUNTRIES REPRESENTED IN OOKLA DATA



+30,000,000,000TESTS TO DATE

Preparing for 5G

Consumer Side

- Distributed Server Network
- Multi Server Test Capability
- Application Upgrades
- Multi Threading
- Device Readiness

Enterprise Products

- New KPIs
- New Tools



Determine a connection's inbound bandwidth by testing how quickly it can download data



Determine a connection's outbound bandwidth by testing how quickly it can upload data





Understand your connection quality by testing latency down to the millisecond



Diagnose network jitter by testing how your ping times are fluctuating



(?) SPEEDTEST

5G Numbers

One-day data snapshot for October 31st, 2020

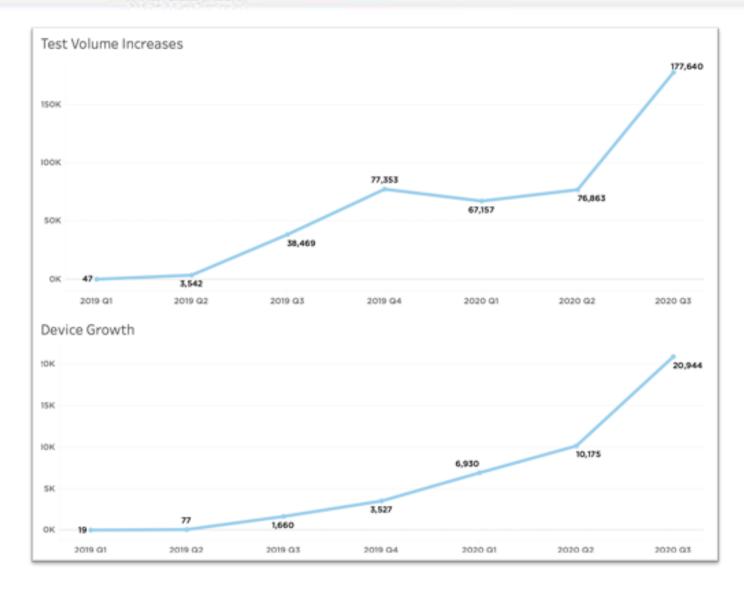
59,549 tests162 networks2,274 devices

Maximum speeds:

download: 3,916 Mbps

upload: 273 Mbps

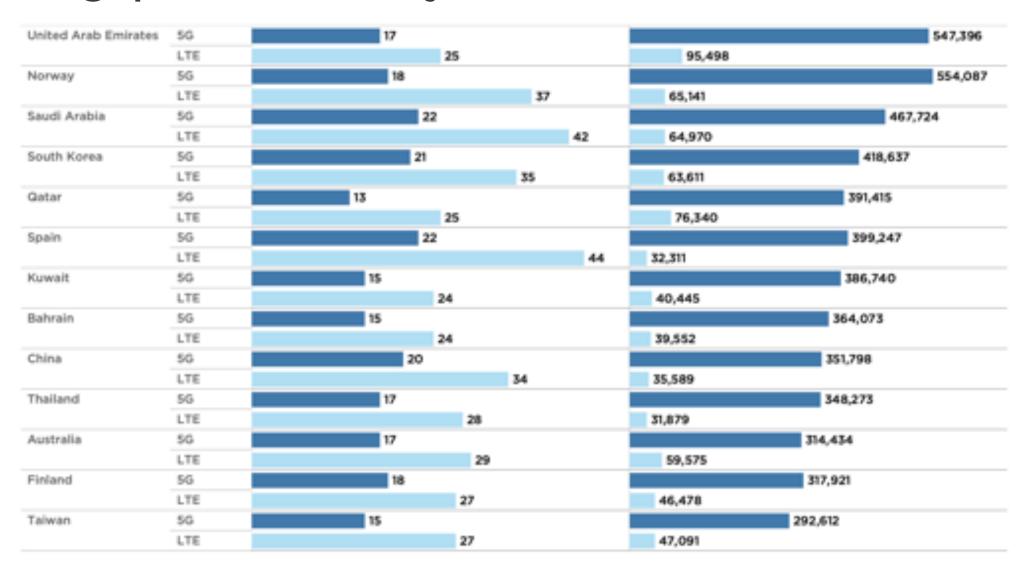
latency: 4 ms



Private and Coolidential

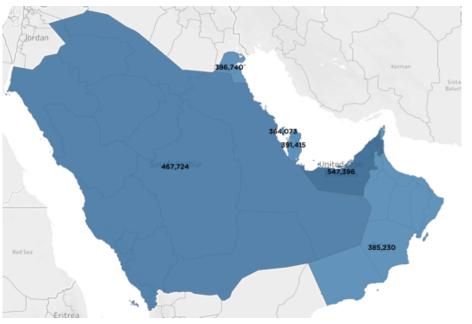


5G throughput and latency in the wild

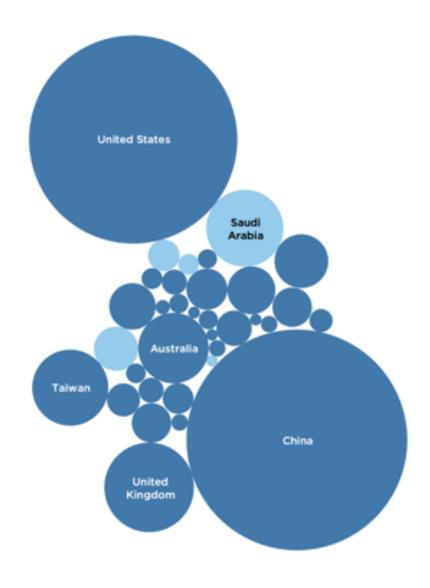


(SPEEDTEST

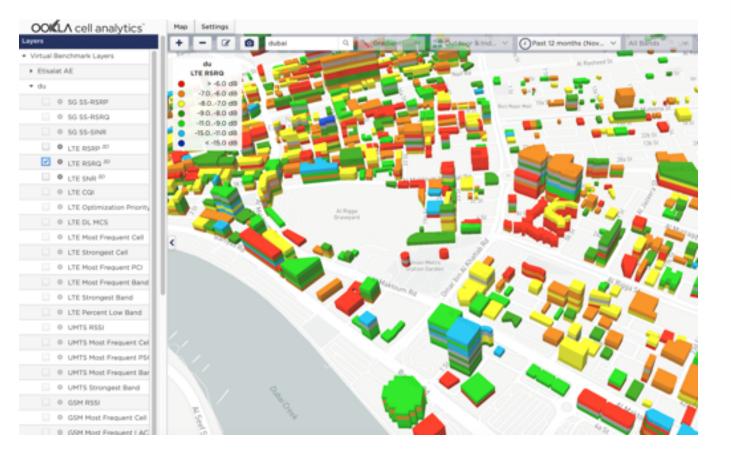
5G Device Locations

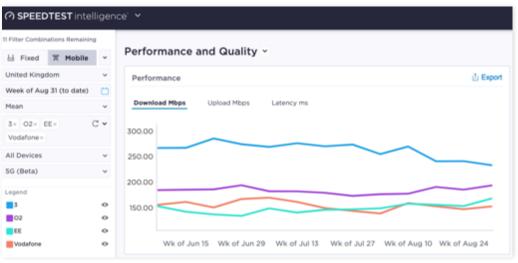


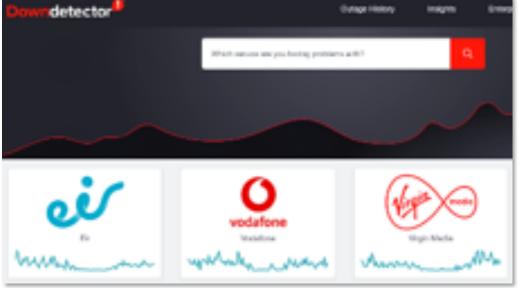
China	106,971
United States	95,125
United Kingdom	17,605
Saudi Arabia	13,020
Taiwan	12,707
Australia	10,905
Thailand	6,345
Hong Kong	5,040
Netherlands	4,739
Kuwait	4,299
Germany	3,718
Puerto Rico	3,551
South Korea	3,418
Canada	2,759
Switzerland	2,399
United Arab Emirates	2,197
Finland	2,085
Italy	1,419
Philippines	1,377
Spain	1,177
Poland	962
Qatar	953
Japan	853
Denmark	825
Romania	808
Norway	776
Ireland	619



Ookla enterprise solutions



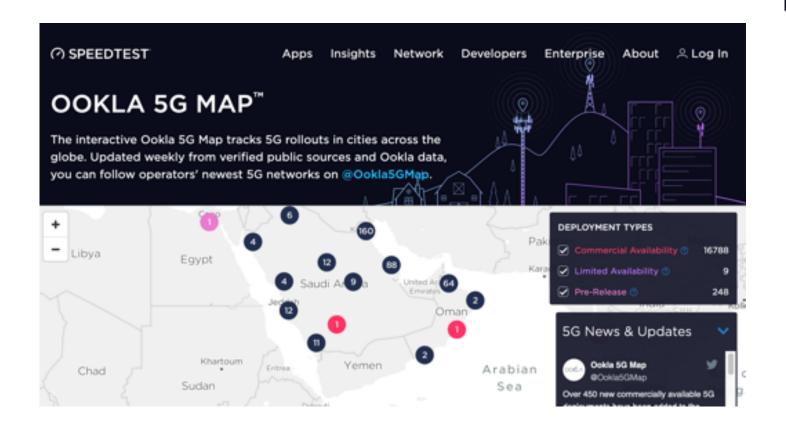








Public Ookla resources

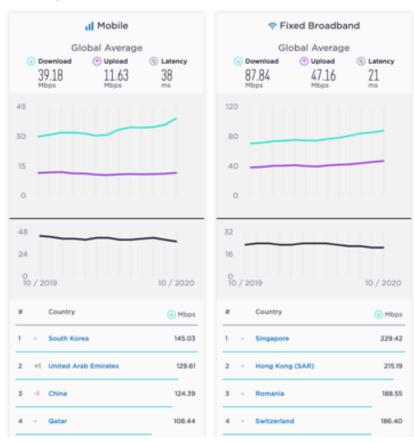




Private and Confidential

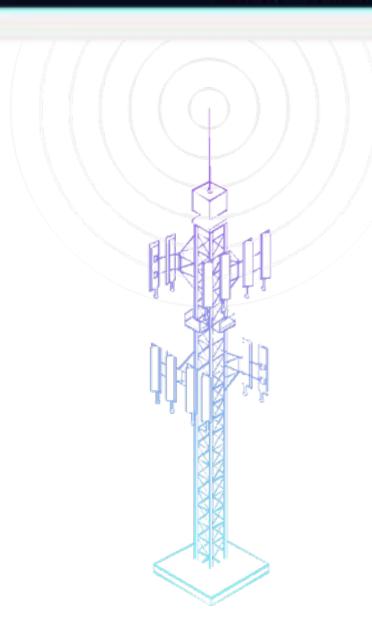
For an in-depth analysis of how COVID-19 has affected global internet performance, read this article.

Global Speeds October 2020



THANKS

james@ookla.com



Private and Coofidential

Back Up



Ookla®

The global leader in mobile and broadband network intelligence, testing applications and technology. With over 12 million consumer-initiated tests taken daily on the company's flagship platform, Speedtest, Ookla provides invaluable insight into the performance, quality and accessibility of networks worldwide. Operators, businesses and government agencies alike rely on Ookla for unparalleled and immediate information on the state of networks and online services.

Ookla's family of companies includes:

Mosaik™ — data visualization and analytics for mobile coverage

Downdetector™ — real-time analysis of status and outages for services

SpatialBuzz™ — real-time customer feedback combined with device radio measurements to help operators find, prioritise, and fix problems

5G throughput and beyond





Radio Signal







Information about the

subscriber network

and the network to

which the device is

connected

Information about signal strength and quality (e.g., RSRP, RSRQ, RSSI), frequency band (EARFCN, UARFCN, ARFCN) and other properties of the cellular connection

Connection

Data connection type and cellular connection type

Radio Access Network

Tracking area (LAC/TAC), base station ID, cell ID, physical cell ID

Device Information

Latitude, longitude, altitude, accuracy and age of location